

**Remarks**

Claims 1-22 are pending in the application.

Claims 1-6 and 14 are rejected under 35 U.S.C. §112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-22 are rejected under 35 U.S.C. §102(e) as being anticipated by Bakshi et al. (U.S. 6574663 B1; hereinafter “Bakshi”).

Each of the various rejections and objections are overcome by amendments that are made to the specification, drawing, and/or claims, as well as, or in the alternative, by various arguments that are presented.

Entry of this Amendment is proper under 37 CFR §1.116 because the amendment: (a) places the application in condition for allowance for the reasons discussed herein; (b) does not raise any new issue requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution; (c) satisfies a requirement of form asserted in the previous Office Action; (d) does not present any additional claims without canceling a corresponding number of finally rejected claims; or (e) places the application in better form for appeal, should an appeal be necessary. The amendment is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. Entry of the amendment is thus respectfully requested.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is better in conformance with the form requirements of Title 35 of the United States Code or are simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known prior art are being made only with an intent to change the literal scope of such claim in the most minimal way, i.e., simply to avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

Also, because a dependent claim inherently includes the recitations of the claim or chain of claims from which it depends, it is submitted that the scope and content of any dependent claims that have been herein rewritten in independent form is exactly the same as the scope and content of those claims prior to having been rewritten in independent form. That is, although by convention such rewritten claims are labeled herein as having been "amended," it is submitted that only the format, and not the content, of these claims has been changed. This is true whether a dependent claim has been rewritten to expressly include the limitations of those claims on which it formerly depended or whether an independent claim has been rewritten to include the limitations of claims that previously depended from it. Thus, by such rewriting, no equivalent of any subject matter of the original dependent claim is intended to be surrendered. If the Examiner is of a different view, he is respectfully requested to so indicate.

#### **Rejection Under 35 U.S.C. §112**

Claims 1-6 and 14 are rejected under 35 U.S.C. §112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants have amended claim 1 to comply with the requirements under 35 U.S.C. §112, ¶2. Therefore, Applicant's claims 1-6 and 14 are allowable under 35 U.S.C. §112. The Examiner is respectfully requested to withdraw the rejection.

#### **Rejection Under 35 U.S.C. §102**

Claims 1-22 are rejected under 35 U.S.C. §102(e) as being anticipated by Bakshi. The rejection is traversed.

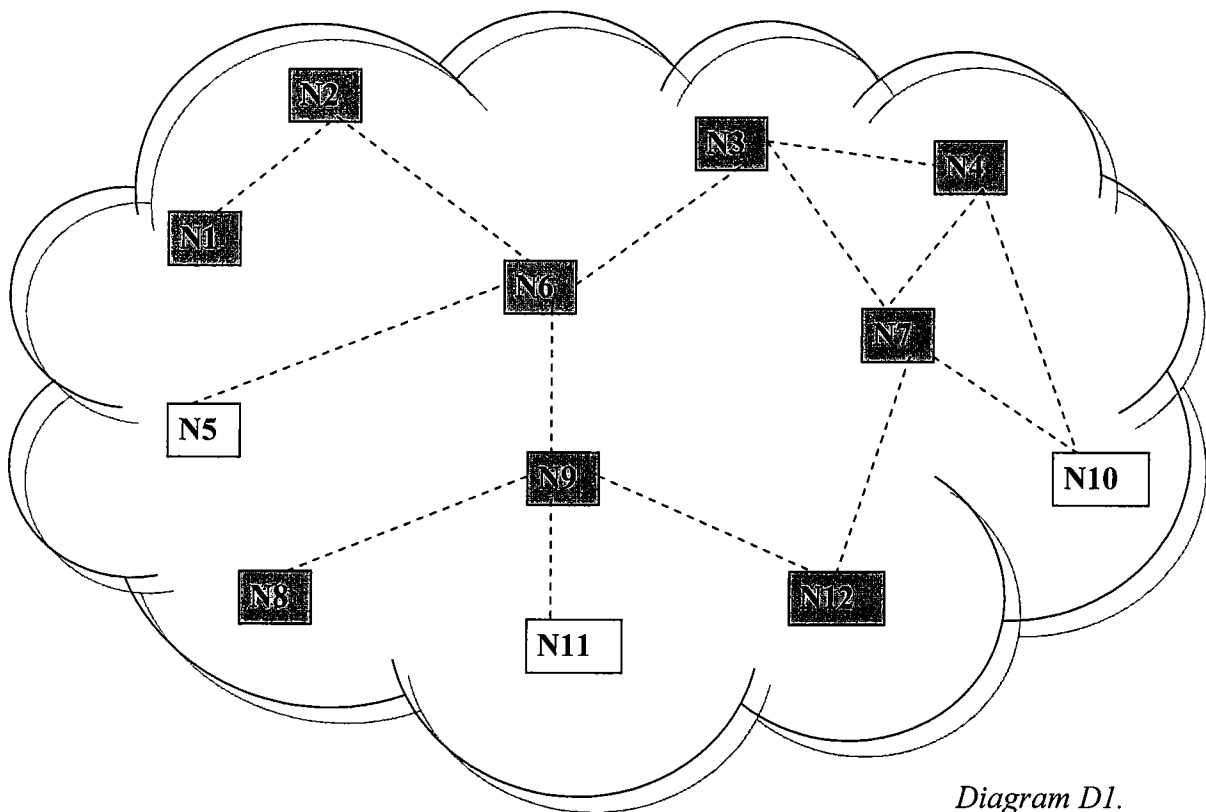
Anticipation requires disclosure in a single prior art reference of each and every element of the claimed invention arranged as in the claim. The Bakshi reference fails to disclose each and every element of the claimed invention as arranged in independent claim 1. Specifically, Bakshi fails to teach or suggest at least:

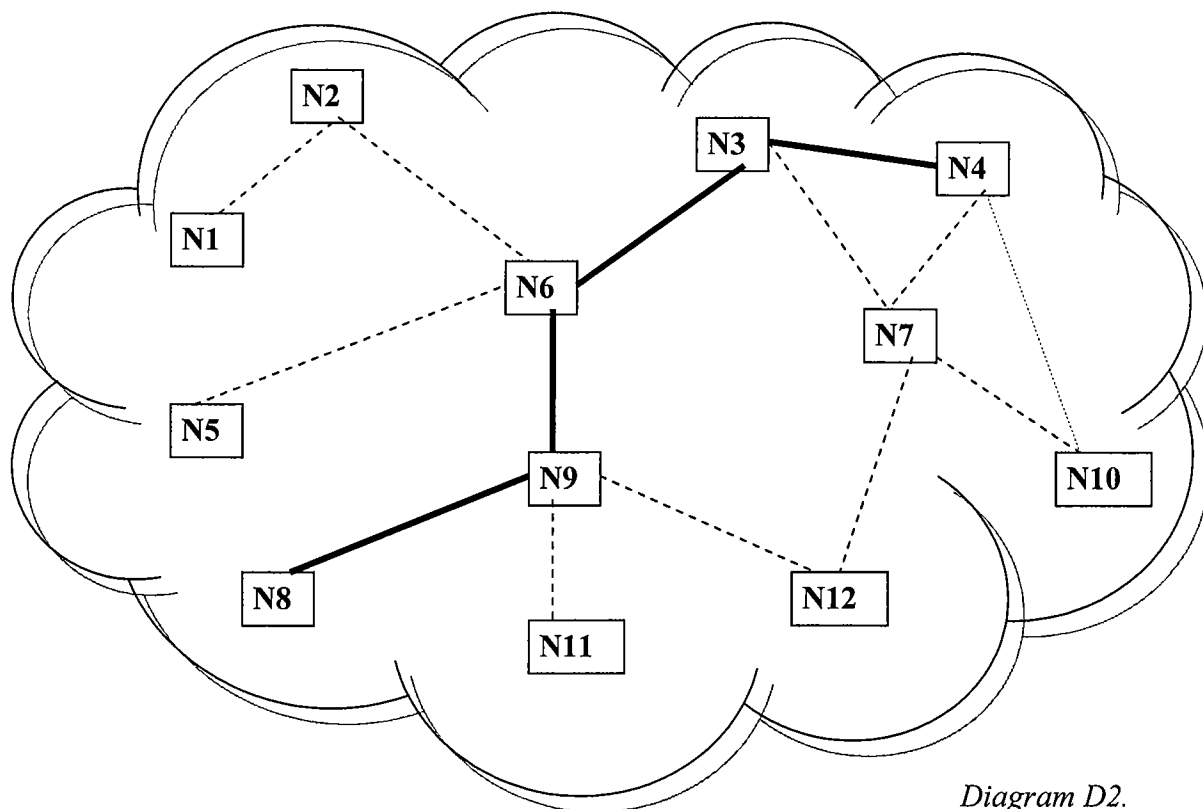
“analyzing the local network information received to map a communication path established in the network;

responsive to the local network information received and the communication path mapped in the analyzing step, selecting a next network element of the communication path for querying,”

as recited in independent claim 1. To facilitate understanding of why Bakshi fails to teach or suggest the above-named elements, Applicants included diagram D1 and diagram D2, where D1 illustrates principles of the Bakshi arrangement, while D2 illustrates principles of Applicants’ claimed invention.

Diagrams D1 and D2 illustrate a communication network, which includes a plurality of network elements N1 through N12. Lines between network elements, such as a line between network elements N1 and N2, indicate communication links between such network elements.





*Diagram D2.*

Bakshi teaches a discovery process where a server repeatedly discovers or identifies new network elements within a network. The server discovers a general topology of all the network elements, active topology of active elements, and ascertains various hardware and software capabilities of the discovered network elements. A network element is active if it is “programmable to install and perform a new function while being connected to the communication links in the network.” In contrast, a network element is passive if its functions cannot be modified while the network element is connected to the network (col. 1, lines 60-65).

Looking at diagram D1, Bakshi discovers where the network elements are located, such as network addresses of the network elements N1 through N12; communication links, indicated as dashed lines, such as N1 <-> N2, N2 <-> N6, and so on; which network elements are active, such as network elements N1, N2, and so on, which are illustrated as shaded rectangles; and service and hardware capabilities of the active network elements. However, Bakshi does not disclose discovering established communications paths.

In contrast, only after the discovery process is completed and based on its results, active network elements that are better suited to perform a requested service are chosen to establish a new communication path. For example, if a service is requested between network elements N4 and N8, at least two different communication paths may be established, namely N4 <-> N3 <-> N6<-> N9 <-> N8 and N4 <-> N7 <-> N12 <-> N9 <-> N8.

Unlike Bakshi, Applicants' invention provides for mapping communication paths already established in a network and analyzing the network based on those established communication paths. For example, in diagram D2, a communication path: N8 <-> N9 <-> N6 <-> N3 <-> N4 ("N8-N4"), indicated by plurality of continuous lines, has been already established. Such established communication path is mapped via an iterative process of identifying those network elements that are associated with the communication path and extracting from those network elements local (to the respective network elements) network information, for example topology information, connection information, and a performance information. For example, to identify that network element N6 is associated with the established communication path N8-N4, network elements N9 or N3 are queried, depending on whether the querying process has started with network elements N8 or N4 respectively.

Accordingly, unlike the Bakshi reference, where communication networks are analyzed in order to be able to establish new communication paths, according to Applicants' claimed invention, communication networks are analyzed based on already established communication paths. Therefore, Bakshi fails to disclose each and every element of the claimed invention, as arranged in Applicant's independent claim 1, and thus, independent claim 1 is not anticipated by Bakshi and is allowable under 35 U.S.C. §102. Claims 7, 13, and 17 include relevant limitations substantially similar to those discussed above with respect to claim 1. Therefore, for at least the reasons discussed above with respect to claim 1, independent claims 7, 13, and 17 are not anticipated by Bakshi, and therefore allowable under 35 U.S.C. §102.

Finally, because all the dependent claims recite additional limitations and all the limitations of the respective independent claims from which they ultimately depend, the dependent claims are also allowable.

Therefore, Applicant's claims 1-22 are allowable over Bakshi under 35 U.S.C. §102. The Examiner is respectfully requested to withdraw the rejection.

**Conclusion**

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, the Examiner is invited to call Eamon Wall at (732) 530-9404 so that arrangements may be made to discuss and resolve any such issues.

Respectfully submitted,

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